

### REMARKS/ARGUMENTS

Claims 1-20 are pending. Claims 1-8 have been amended. Support for the claim amendments is deemed to be evident from the original claims. Claims 9-20 are new. Support for claims 9-16 is found in at least page 6 of the specification. Support for claims 17-20 can be found in at least pages 5-32 comparing alcoholic beverages made according to the claimed method to alcoholic beverages similarly made but without the addition of pea protein. Thus, no new subject matter is added. Favorable consideration of this application, as presently amended is respectfully requested.

### Objections -- Claims

Claims 1 and 2 were objected to on the grounds that “[t]he claims are generally narrative and indefinite, failing to conform with current U.S. practice.” (Office Action at page 2). Further, the Office Action objected to claims 1 and 2 on the ground that it is unclear as to whether the invention is directed to “‘a processing method’ comprising several other processes” or “to a method of production of an alcoholic beverage including the method steps.” (Id.). The Office Action also objected to claims 1 and 2 on the grounds that “it is not clear if the step of protein extraction is included in the process, or Applicants’ intention was to refer to the protein extract obtained from the green peas” and that “protein extract could not be added to the process, but rather to the product resulting from performing the corresponding method step.” (Office Action at page 3).

Applicants submit that these objections are moot in view of the amended claims.

### Summary of Rejections

Claims 1-8 stand rejected under 35 U.S.C. § 112, second paragraph; claims 1 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Hsu et al. (U.S. patent no. 5,387,425) in

view of Boni et al. (EP 962522); claims 2-4 and 6-8 under 35 U.S.C. § 103(a) as unpatentable over Oono (WO 2004/000990) in view of Boni; and claims 2-4 and 6-8 under 35 U.S.C. § 103(a) as being unpatentable over Bavisotto et al. (U.S. patent no. 3,720,517) in view of Boni. Applicants respond to these rejections in turn and respectfully request reconsideration and withdrawal of these rejections.

Rejections -- 35 U.S.C. § 112, second paragraph

Claims 1-8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite due to the use of the term “improved.” This issue is moot in view of the revision of claims 1-8 to remove the word “improved” from the claims. The language of claim 4 also has been clarified. Accordingly, these grounds of rejection may now be withdrawn.

Rejection -- 35 U.S.C. § 103(a)

Claims 1 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu in view of Boni. This rejection cannot be sustained because neither Hsu, nor Boni provides any motivation for selectively incorporating a pea protein in the production of an alcoholic beverage with foaming properties.

Hsu is relied upon for teaching a method of producing an alcoholic beverage by fermentation of malt, see the bottom of page 5 of the Office Action. According to page 5 of the Office Action, these steps include mashing malt, obtaining a clear wort (clear liquid obtained from the mash), boiling and hopping the wort, fermenting the wort, filtering the fermented wort, and adding “foaming proteins” to the fermented and filtered wort. The Office Action also indicates that Hsu teaches the use of wheat and barley proteins during fermentation. Col. 3, line 48-col. 5, line 16 of Hsu describe various methods of improving foaming properties of beer, but none of these methods contemplate use of pea protein. In

fact, Hsu is directed to improving foaming properties by a different method requiring the addition of isohumulone, see “Summary of the Invention” col. 5, lines 17-30.

The Office Action acknowledges at the bottom of page 5 that Hsu fails to disclose a method for improving beer foaming using pea proteins.

Boni is cited by the Office Action as disclosing that proteins used in beer production may be obtained from various vegetable materials including peas, beans and grain. However, Boni is silent about the effects of protein on foaming properties and is directed to adding proteins to clarify beverages by binding to and removing polyphenols and other substances. (See paragraph [0017] of Boni). Moreover, the Examples of Boni merely demonstrate the use of plant protein in beverages that do not have foaming properties (i.e., must, red wines, vinegars and white wines). Boni cannot provide a reasonable expectation of success for improving the foaming properties of an alcoholic beverage by selectively adding pea protein during fermentation.

The Office Action regards this effect as being inherent to any method of adding protein in the production of alcoholic beverages. However, Applicants clearly show the advantages of adding pea protein as opposed to soybean protein in the production of alcoholic beverages with foaming properties. Boni is not concerned with the type of protein added and can provide no motivation to select pea protein as opposed to soybean protein, which Applicants show do not produce the same superior foaming properties as the invention. (See paragraphs [0012] - [0017] of Boni).

For example, the specification demonstrates that otherwise similar alcoholic beverages made without foam improving materials do not have the same foaming properties as those which are made by including pea protein, see Embodiments 1-8 of the present specification. Similarly, use of bean proteins like soybean produces inferior results, see Embodiments 1-7 of the present specification. Specifically, each Embodiment demonstrates

that an alcoholic beverage made with the addition of pea protein had a higher NIBEM value than alcoholic beverages made with soybean protein or without foam improving materials. The beneficial results that follow from the addition of pea protein to an alcoholic beverage with foaming properties is not apparent nor suggested from Boni.

Consequently, this rejection cannot be sustained because the prior art did not suggest or provide a reasonable expectation of success for the claimed methods which require the selective addition of pea protein to the production of alcoholic beverages with foaming properties. Hsu fails to disclose or suggest pea protein at all and Boni fails to provide any motivation for selecting pea protein instead of some other protein that would not produce the same superior foaming properties provided by the invention.

Rejection -- 35 U.S.C. §103(a)

Claims 2-4 and 6-8 were rejected under 35 U.S.C 103(a) as being unpatentable over Oono in view of Boni. This rejection cannot be sustained because neither Oono or Boni provides any motivation for selectively incorporating a pea protein in the production of an alcoholic beverage with foaming properties.

Regarding these rejections, Oono is relied upon for teaching a method for preparation of an alcoholic beverage by preparing a pre-fermentation liquid using syrup containing sources of carbon, nitrogen, hops, coloring matter, foam formation and head retention enhancing substances. The Office Action also indicates that Oono discloses “proteinic substances as foam formation and head retention enhancing substances.” (Office Action at page 6). While paragraphs [0029] to [0031] of Oono disclose various foam formation and head retention enhancing substances, none of the substances contemplate the use of pea protein. Moreover, Oono suggests, if anything, that the influence of foam formation and head

retention enhancing substances is “realized by considering the quantity of hops used.” (See paragraph [0031] of Oono).

Office Action acknowledges at page 6 that Oono fails to disclose a method for improving beer foaming using pea proteins.

Boni is relied upon for the same disclosure discussed above with regard to Hsu. Thus, for the reasons discussed above with respect to Hsu, Boni also fails to overcome the deficiencies of Oono. Oono fails to disclose or suggest pea protein at all and Boni fails to provide any motivation for selecting pea protein instead of some other protein that would not produce the same superior foaming properties provided by the invention. Consequently, this rejection cannot be sustained because the prior art did not suggest or provide a reasonable expectation of success for the claimed methods which require the selective addition of a pea protein to the production of an alcoholic beverage with foaming properties.

Rejection -- 35 U.S.C. §103(a)

Claims 2-4 and 6-8 were rejected under 35 U.S.C 103(a) as being unpatentable over Bavisotto in view of Boni. This rejection cannot be sustained because neither Bavisotto or Boni provides any motivation for selectively incorporating a pea protein in the production of an alcoholic beverage with foaming properties.

Bavisotto is relied upon for teaching “preparation of an alcoholic beverage by forming a malt-based liquid containing a fermentable carbohydrate from one or more sources; a food grade material having a high soluble protein or amino acid content; malt and hops or hop extract.” (Office Action at page 7). Further, the Office Action asserts that Bavisotto “discloses material derived from soy bean, such as soya flakes” and an “alcoholic beverage prepared by the method described above.” (Id.). However, Bavisotto, which is directed to “providing a champagne beverage without the use of grapes and without the addition of

flavors”, (Col. 1, lines 31-32 of Bavisotto), does not contemplate improvement of foaming properties, much less, the use of pea protein.

Indeed, the Office Action acknowledges at page 7 that Bavisotto fails to disclose a method for improving beer foaming using pea proteins.

Boni is relied upon for the same disclosure discussed above with regard to Hsu. Thus, for the reasons discussed above with respect to Hsu, Boni also fails to overcome the deficiencies of Bavisotto. Bavisotto fails to disclose or suggest improving foam properties and pea protein at all and Boni fails to provide any motivation for selecting pea protein instead of some other protein that would not produce the same superior foaming properties provided by the invention. Consequently, this rejection cannot be sustained because the prior art did not suggest or provide a reasonable expectation of success for the claimed methods which require the selective addition of a pea protein to the production of an alcoholic beverage with foaming properties.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance for claims 1-20 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants’ undersigned representative at the below listed telephone number.

Application No. 10/564,063  
Reply to Office Action of August 5, 2010

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Thomas M. Cunningham", is written over a horizontal line.

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